

# THE BEAN BAG

*A newsletter to promote communication among research scientists concerned with the systematics of the Leguminosae/Fabaceae.*

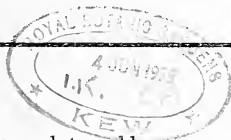
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Beltsville, Maryland 20705

**No.9**

**May 1979**



FROM THE EDITORS: We always are pleased to add new readers to the Bean Bag, and especially pleased when we can add a new country to our distribution. With this issue we are adding five taxonomic botanists from the People's Republic of China: Drs. Li, Sheng, Wu, Xu, and Yu. Their addresses may be found on page 3. These scientists were official delegates in the Chinese Delegation of Botanists to the United States, sponsored by the Committee on Scholarly Communication with the People's Republic of China formed by the Council of Learned Societies, the Social Science Research Council, and the National Academy of Science/National Academy of Engineering. They spent three days in the Washington, DC area visiting the U.S. National Seed Herbarium of the Plant Taxonomy Laboratory, Economic Botany Laboratory, University of Maryland, USDA Plant Introduction Station, U.S. National Arboretum, and Smithsonian Institution. One of the highlights of their visit was the fried chicken, salad, and Bluegrass music outing at the rural home of James Duke. Jim played base with his group the Howard County Dump, a locally famous Bluegrass band.

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## ECONOMIC BOTANY LABORATORY

Beginning February 11, 1979, Jim Duke became affiliated with the Economic Botany Laboratory, PGGI, BARC-East, U.S. Department of Agriculture. Duke's Ecosystematic program, discussed at the recent International Legume Conference at Kew, was transferred with him. Duke's primary concern in his new position is procuring plant material for the NIH Cancer Screening program.

In the Economic Botany Symposium "Plants and Cancer" (Cancer Treatment Report 60(8):973-1215. 1976.), A. S. Barclay states that with 17,000 species in 600 genera, the legumes outweigh other families in the Rosales, with respect to anti-cancer activity; of 316 genera tested, 85 are active. Most of the activity however is due to tannins, sterols, quinones, rotenoids, and proteins (including cesalin from Caesalpinia gilliesii). An active alkaloid, monocrotaline, was isolated from Crotalaria spectabilis. Species of Astragalus, Calliandra, Cytisus, Diphysa, Glottidium, and Sesbania have also shown some anti-tumor activity.

Duke urges monographers to consider submitting material for cancer screening. Vouchered 2-kg (dry weight) collections are required. A monographer wishing to have species evaluated for anti-cancer constituents, could submit, e.g. 2-kg dry leaves (vouchered), 2-kg roots, 2-kg of nodules, etc. etc. Analytical data will be made available to collaborators. For further information call Duke at (301) 344-2431 or write Jim at: Economic Botany Laboratory, Building 265, BARC-East, USDA, Beltsville, Maryland 20705 USA.

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#### NEW JOURNAL

The X Club has issued the first number of volume 1 of the journal, ISELYA, named for Duane Isely, "noted authority of the Leguminosae of the United States, and major professor of several of the Club members" [including the Associate Editor of Bean Bag]. The X Club was founded five years ago at Iowa State University; the significance of the Club's name is explained on the first page of the new journal. Articles and notes on legume and grass families will be featured, though papers on other families will not be excluded. The first number (with 55 pages) of four in volume 1 contains two legume papers, "Studies in Cassia" by LASSEIGNE and "Sketches of Flower Dissections in Phaseoleae (Fabaceae, Faboideae)" by LACKEY and a note on Thelypteris interrupta by J. W. Thieret.

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#### DIRECTORY CORRECTIONS

Please make these corrections in your copy of the Directory in BB-7, pages 2-10.

CRISTOFOLINI: Delete "Via Cumano 2" and add "Via Valerio 30".

GREAR: Delete address and replace with "655 Powell St., Apt. 703, San Francisco, CA 94108 USA".

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#### DIRECTORY ADDENDUM III

These new readers are additions to those who are listed in the BB-7 Directory, pages 2-10, and the appendix, pages 19-20, and BB-8, pages 3-4.

#### INDIVIDUALS

ARROYO, Mary K.; (Dr.); Facultad de Ciencias, Departamento de Biología, Universidad de Chile, Casilla 653, Santiago, CHILE

CHANDEL, Krishandal Singh; (Dr.); National Bureau of Plant Genetic Resources, I.A.R.I. Campus, New Delhi 110012, INDIA; [Rice-bean, Winged-bean, Mung-bean, and Pisum exploration and evaluation]

GARCIA-MOYA, Edmundo; (Prof.-Investigador); Rama de Botanica, Colegio de Postgraduados, Chapingo Edo. de Mexico, Mexico City, MEXICO; [Phaseolus]

GONZALEZ P., Daniel Julian; (Hno.); Comunidad Universitaria LaSalle,  
Apartado Aereo 27389, Bogota, COLUMBIA

LI, Xing-xue; (Dr.); Deputy Director, Nanking Institute of Geology and  
Paleontology, Nanking, PEOPLE'S REPUBLIC OF CHINA

MANSHARDT, Richard M.; (Graduate Student); Vegetable Crops Dept., 3026 McCarty  
Hall, University of Florida, Gainesville, FL 32611 USA; [Phaseolus vulgaris  
and P. coccineus]

NORTHINGTON, David K.; (Dr.); Dept. of Biological Sciences, Texas Tech.  
University, Lubbock, TX 79409 USA; [Sophora]

ROBERTSON, Kenneth R.; (Dr.); Illinois Natural History Survey, 172 Natural  
Resources Bldg., Urbana, IL 61801 USA; [Caesalpinioideae and Cladrastus]

SHENG, Cheng-gui; (Dr.); Deputy Director, Chiangsu Institute of Botany,  
Nanking, PEOPLE'S REPUBLIC OF CHINA

SMALL, Ernie; (Dr.); Biosystematics Research Institute, Saunders Building,  
C.E.F., Ottawa, K1A 0C6, CANADA

SPRENT, J. I.; (Dr.); Department of Biological Sciences, University of Dundee,  
Dundee SCOTLAND DD1 4HN; [Root nodules on Phaseoleae and Viciae]

WEDER, Juergen K. P.; (Dr.); Institut fur Lebensmittelchemie, Technische  
Universitaet Muenchen, Lichtenbergstrasse 4, D-8046, Garching, WEST GERMANY  
[Legume chemistry]

WU, Zheng-yi; (Dr.); Head, Yunnan Institute of Botany, Academia Sinica,  
Kunming, PEOPLE'S REPUBLIC OF CHINA

XU, Ren; (Dr.); Head, Department of Paleobotany, Institute of Botany,  
Academia Sinica, Peking, PEOPLE'S REPUBLIC OF CHINA

YU, De-jun; (Dr.); Director, Peking Botanical Garden, Academia Sinica,  
Peking, PEOPLE'S REPUBLIC OF CHINA

#### LIBRARIES, RESEARCH INSTITUTES, ET AL.

SCIENCE REFERENCE LIBRARY; 10 Porchester Gardens, London, W2 4DE ENGLAND

LIBRARY; Regional Agricultural Research Institute, P. O. Box 9, Menemem-  
Izmir, TURKEY

LIBRARY; ICRAF, P. O. Box 30677, Nairobi, KENYA

RESEARCH COUNCIL; ICRAF, P. O. Box 30677, Nairobi, KENYA. [Leguminous tree  
 spp. which can be included in Agroforestry.]

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GLEANINGS FROM THE DATA COLLECTION SHEETS

BROCKWELL and collaborators have completed the second bibliography of Australian work on Rhizobium. (See Recent Legume Literature Column.) Copies of both reports are available from Division of Plant Industry, CSIRO, P. O. Box 1600, Canberra City, ACP 2601 AUSTRALIA.

CHANDEL reports that the Indian Council of Agricultural Research has formed an All-India coordinated research project on under-exploited/under-utilized crop plants. Developed at the National Bureau of Plant Genetic Resources at New Delhi and various other centres, this research possibly will accelerate research and developmental activities and generate conditions for fruitful utilization of many such plants. For rice-bean (Vigna umbellata) alone 450 collections from indigenous and exotic sources have been brought together through exploration and exchange. These were evaluated over a number of years and superior strains have been identified and multiplied. Multi-location testing of these strains, first in India and later outside in its zone of adaptation, is being initiated. Seeds of wild Phaseolus and Vigna species are requested and seeds of Pisum arvense, Vigna spp., Crotalaria spp., Rhynchosia spp., Atylosa spp. are offered. Dr. Chandel plans to be collecting in the Himalaya Mountains in 1979.

CORBY upon retiring has taken on a Fellowship to continue study of nodules in relation to legume systematics.

EL-GAZZAR presented a paper entitled "Ravenelia and its segregates (Uredinales) as indicators of taxonomic affinity in Leguminosae" at the symposium on "Parasites as Plant Taxonomists", held at Uppsala, Sweden.

GEESINK reports that the following students have started revisions (mainly of the S.E. Asiatic species) of the following genera of Leguminosae-Papilionoideae: Mrs. J. W. A. Ridder-Numan: Spatholobus (monograph), ca. 15 spp. Mr. H. E. Hazelhorst: Tephrosieae, 180 spp., especially Millettia/Derris and allies (pollen morphology, also EM). Miss L. Nanhoe: gross morphology of Inocarpus and Etaballia (Dalbergieae), Ms for Blumea, 1979; Miss A. J. P. de Haas and Miss M. T. M. Bosman: Urariopsis, (found the genus essentially the same as some Uraria species), Ms for Blumea, 1979; Miss M. Bresser: Phylacium, published in Blumea 24(1978). Miss M. Kathmann: S.E. Asiatic Teramus (Phaseoleae-Glycininae), preliminary Ms. Mr. H. E. Hazelhorst: preliminary Ms on Dumasia (Phaseoleae-Glycininae). Material of these genera for identification is welcome.

HANELT is collecting land-races of Vicia, Pisum, and Phaseolus in southern parts of Poland.

HAQ had completed a study of nutrient and metabolite movement in embryogenesis of Phaseolus species and interspecific hybrids. Will be collecting winged bean germplasm in Bangladesh in early 1979 with funding by the International Board for Plant Genetic Resources.

HUL THOL has completed a computer-assisted study of gross morphology and palynology of Caesalpinieae and is starting on study of pollen ontogeny of Caesalpinia pulcherrima using light microscopy, as well as a study of seedlings in selected genera of Caesalpinieae. Needs viable seeds of Caesalpinieae and fresh flower buds of Caesalpinia pulcherrima, Delonix regia, Parkinsonia aculeata, Peltophorum dasyrachis, and P. pterocarpum.

KANIS has finished a paper entitled "The Malesian species of Serianthes Bentham (Fabaceae-Mimosoideae)".

LASSEIGNE has copies of volume 1, number 1 of ISELYA. The 1979 volume with 4 numbers is \$8.00 (U.S.) in advance, \$10.00 after close of volume, or \$2.50 per number, add \$1.00 for foreign addresses.

SLINKARD has copies of LENS, volume 6, 1979 available for \$2.00 (U.S. or Canadian).

SPRENT is conducting a taxonomic and evolutionary survey of legume root nodule structure in relation to the type of nitrogenous export product. Initially this will concentrate on the Viciae and Phaseoleae, and experimental studies on the functioning of the different types of vascular system in nodules will be carried out. Wants fixed material of nodules of any legumes outside the normal crop species (Pisum, Glycine, Phaseolus, Vicia, Lens, Lathyrus, Vigna, Trifolium).

VASSAL has copies of bulletin no. 6 of Groupe International pour L'Etude des Mimosoideae. Write for price.

VIDAL has completed a study of the Caesalpinieae and reports Nguyễn Van Thuan has revised Phaseoleae and K. LARSEN and VIDAL have revised Caesalpinioideae for the Flore du Cambodge-Laos-Viêt-Nam. I. Nielsen has revised the Mimosoideae for both the Flora of Thailand and Flore du Cambodge-Laos-Viêt-Nam. VIDAL suggests graduate students might study Parkinsonia and Cercidium. Will annotate Pterolobium, Asian Caesalpinia, and Caesalpinioideae of Indochina.

YAKOVLEV has recently returned from Cuba. He plans to prepare treatments of the Cuban legumes in cooperation with Adelaida Barreto at the Instituto Botanico in Havana. He will work first on the Mimosoideae.

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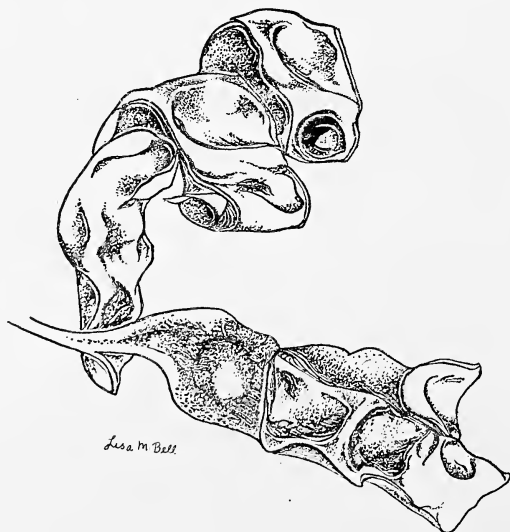
#### RECENT (POST 1977) LEGUME LITERATURE

When preparing a citation of your published legume paper or legume papers of general interest, please follow the form used in this BB. Use additional key words when needed to supplement the title. Major publications may have brief reviews. For additional information or reprints write to the author or authors; the addresses of those whose names are fully capitalized may be found in BB-7-9. Only complete citations will be accepted.

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DATA COLLECTION FORM FOR THE BEAN BAG

Last Name, First Name      Title

*Change of address:*

*Legume publications (yours or others) since last issue of BB. (Please follow style in a recent BB).*

*Legume projects completed since last issue of BB:*

*Legume projects started since last issue of BB:*

*Suggested legume projects suitable for graduate students:*

*Needed legume research material and exchange offerings:*

*Planned field trips:*

*Personal notes (include any item of general interest to your colleagues and comments to the editors):*

*Legume taxa willing to annotate:*